Thus, we have established injection of ions through the inteface of two dielectrics PVDF and PETP occurring at different levels of current as a function of the polarity of the applied voltage. In respect of PVDF the passage of the ions of the impurity or the products of electrolysis to the neighbouring dielectric is related to the effect of electro-purification. At the same time, neutralization of the charged impurity (ions) takes place in the volume of PETP. In the end as a whole the system becomes purer and electrically more homogeneous. The possibility, in principle, of controlled ion injection from PVDF into other dielectrics may be used to study film dielectrics and their defectoscopy.

Translated by A. CROZY

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NMR STUDY OF PHASE COMPOSITION AND THE PROCESS OF PHASE SEPARATION IN SEGMENTED POLYURETHANES*

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Pulse NMR methods have been employed to investigate the phase state and the process of phase separation in segmented PUs based on 1,4-butanediol and 4,4′-diphenylmethane diisocyanate with crystallizable (polybutylene glycol adipate) and non-crystallizable as part of PU (polybutylene ethylene glycol adipate) polyesters. For both samples the same T_g of flexible blocks (−20°C) and temperature of the disappearance of the microphase of the rigid blocks (110°C) are observed. The segregation process was found to have two stages with acceleration as the temperature rises in a certain interval. The crystallization processes of the flexible blocks were found to influence the rate of segregation of the rigid blocks.

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